

MBT5210

4×25G Bit Error Ratio Tester

Version 4.6



Product Description

Semight Instruments MBT5210 is a high-performance bit error ratio tester with wide range data rate from 9.953~28.2 Gbps.

MBT5210 provides high signal quality: Fast rising edge, low inherent jitter; Standard pseudorandom bit sequences (PRBS) can be generated functionally: 7, 9, 11, 15, 23, 31; The trigger clock supports up to half rate clock (high speed) and other frequency division output (low speed); Built-in clock recovery; Support switching input polarity; High repeatability and traceability to standard test results. Can be fully controlled by calling external API control (LabVIEW, C #) through the USB control interface.

Applications

- High speed Serdes test;
- > 25G line card;
- Active optical cable (AOC), direct connection cable (DAC), SFP+, zQSFP, QSFP+, CFP/2, CXP and QDR, eCPR tests and applications;
- Optical transceiver module test;
- > DVT test of telecommunication/data communication, devices/modules and systems;
- Assist maintenance and test of network equipment;

Technical Specification

Working Condition

Temperature 23 \pm 5 °C;

Humidity 30%~80% Relative Humidity;

The calibration period is 1 year;

Data Rate:

9.953Gbps~28.2Gbps and other standard rates;

Environment Indicators

Environment	Indoor		
Work	0°C~+55°C, 30%~80% Relative Humidity with no condensation		
Storage	-30°C~70°C, 10%~90% Relative Humidity with no condensation		
Altitude	Operation:0m to 2000m, Storage:0m to 4600m		
Power	LINE: 100-240VAC,50/60Hz,250W		
	FUSE: T2AL 250 VAC		
Warm-up time	10 minutes		
Dimensions (mm)	412*265*105(with foot pad/handle)		
Weight	Net weight 5.1 kg		

Pattern Generator:

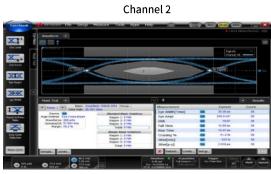
The following PRBS pattern is supported: 2⁷-1,2⁹-1,2¹⁵-1,2²³-1,2³¹-1,Square Wave, User Defined Pattern;

Data Output		
Output type	Differential/Single-ended	
Modulation format	NRZ	
Data patterns PRBS	2 ⁷ -1,2 ⁹ -1,2 ¹⁵ -1,2 ²³ -1,2 ³¹ -1, Square Wave, User Defined Pattern	
Data rate	9.953~28.2 Gbps	
Frequency accuracy (typ.)	±50 ppm	
Output amplitude	500 000 V	
(differential)	600~800 mVp-p	
Rise time (20–80%)	<16 ps	
Fall time (20–80%)	<16 ps	
Jitter	<515 fs	
Connector	2.92mm female,50Ω	









Channel 4 Channel 4

- Data rate=25.78125 Gbps;
- > DCA 86100D with precise time base host and N1045A module are used for testing under 450

mm 2.92 cable;

Clock and Trigger Output

Support differential/single ended clock output, clock division ratio can be set

Output amplitude	>300 mV
Output type	Differential, AC-coupled
Connector	2.92 mm female, 50Ω

Error Detector

Input type	Differential
	Single-ended
Input impedance	100Ω
Input amplitude	<1000 mVp-p
Sensitivity	<40 mV
Termination	AC-coupled
Data patterns PRBS	2 ⁷ -1, 2 ⁹ -1, 2 ¹⁵ -1, 2 ²³ -1, 2 ³¹ -1
Data rate	9.953~28.2 Gbps
Input amplitude range	40~1000 mV
(differential)	
Clock mode	Built-in clock recovery
Synchronization type	Auto Synchronization (level/phase)
Connector	2.92 mm female, 50Ω

Ordering Information

Power cord、USB cable, Measurement Software and Drivers.

MBT5210	4×25G Bit Error Ratio Tester	
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Contact us

Mail

sales@semight.com

Address

No. 1508, Xiangjiang Road, Suzhou New District (SND), Jiangsu, China

Web

Visit www.semight.com for more information.

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